

REPORT: TARGETS GROUP COURSE
STUDENTS AND TEACHERS OF GRADUATE COURSE

Wildlife Conservation with Zoo Biology

Wildlife and Conservation Practical

Salford University - England

Organization: Maria Aparecida de Freitas

Teachers: Dr. William Magnusson

Dra. Flavia Costa

Msc. Claudia Gemaque

Msc Ignácio Oliete Josa

Dr. Glenn Shepard

Monitors: Emílio Manabu Higashikawa

Jefferson Valsko

Timoty Vincent

Reserva Florestal Adolpho Ducke
Conservation Units in Lower Rio Negro

January 2016

The National Institute of Amazon Research received teachers and students of undergraduate degree (Wildlife Conservation with Zoo Biology and Wildlife Conservation and Practical) of the University of Salford in England. The course began on January 12 with the view of students in zoological collections (mammals and invertebrates) and INPA herbarium.



(Photo: Invertebrates, mammals and herbal Collections by Chez, Michael Moore's (1 and 5), Stacey Louise Mather (2 and 4) Tim Vincent (3).

Besides knowing the collections, visitors learned about the various corners of the INPA.



Photos: Lloyd Michael Haines

Also know the MUSA (Amazon Museum)



Photos: Chiara Benvenuto e Richard More



The course "Monitoring target groups", sponsored by the Center for Amazonian Biodiversity Integrated Studies (CENBAM) and taught at Ducke Reserve started the night with the presentation of Dr. William Magnusson. The presentation can be seen [here](#) link and tried to disclose the methods and techniques adopted by the Biodiversity Research Program (PPBio) to monitor biodiversity using target groups.



The first group were approached ferns under the guidance of Dr. Flávia Costa.



The aim of the exercise was the sampling ferns in a portion of uniform distribution.



With the data it was possible to calculate the occurrence frequency of ferns in a given area using the method RAPELD biodiversity monitoramente.



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Cover % age	LO 1-600		LO 1-700		Riparian plot G1 G2
	G1	G2	G1	G2	
Tricomeres pinatom	0.4	0.3	0.4	2.2	/
Triplophyllan dict.	4	2.9	1.4	1.25	5
Lindsaea lanera	0.14	/	/	/	1.7
Selaginella sp.	0.4	0.2	8.2	2.5	10
Adiantum	/	/	/	/	/

The master Claudia Gemaque comes to the stream fish group as the second target group



After collecting biological information and environmental data, the time comes to screening and identification of species.



The data were used to calculate Wealth, diversity, complementarity, detectability and probability using the Presence program.




	L 6 Lloyd	S 6 Stephany	S 4 Melissa	L 7 Joshua
Bayer 100	X			
Crenchus spirulius	X			
Microcharacidium electroides	X	X		
Aristogemma hippolytrae	X			
Pyrrhalina aff. beavis	X	X	X	
Aegidius pallidus	X	X	X	X
Hypocryptus aff. agilis		X		
Rivulus macleayi		X	X	X
Nannostomus marginatus		X		X
Rivulus kirovskyi			X	X
Hemigrammus C.F. Proterops				X
Loxocera thayeri				X
Neo rident				X

Two target groups used by RAPELD method for biodiversity monitoring, Commercial and Primates trees are sampled in tracks and analyzed by Distance program but for exercise use *Heliconia acuminata*, a kind of easy detection.

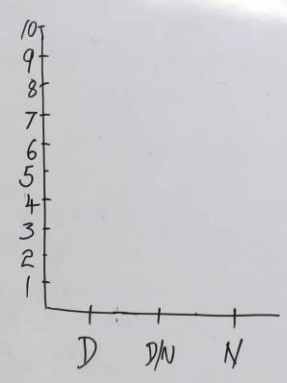




The form of approach to the fifth target group, frogs, replaced due to drought observed this year. The goal was to look for this animal during the day and night and measure its size and thus able to trace correlation between body size, habitat and habits.



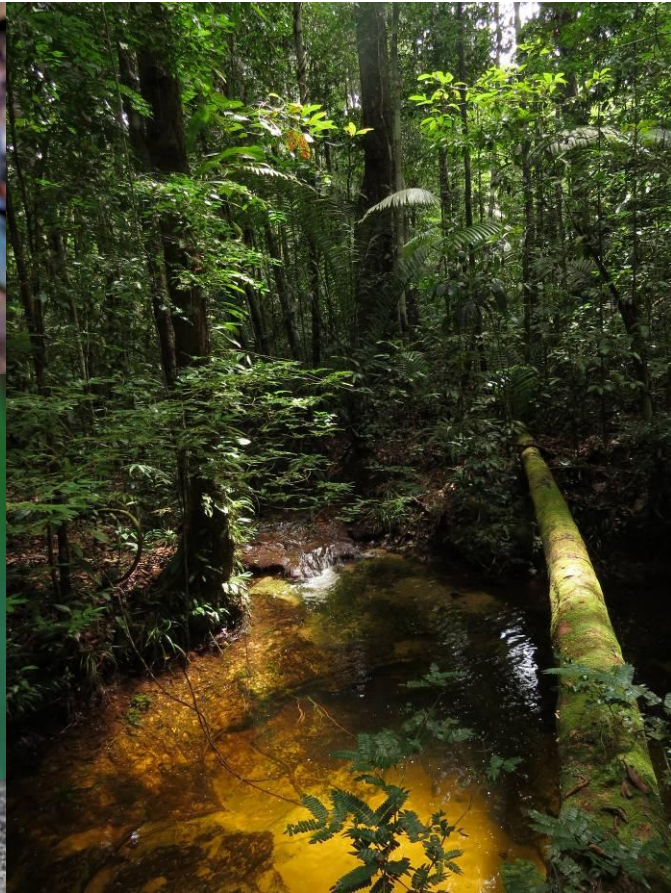
SPECIES	(MM) SUL	SUL BOOK	DAY NIGHT	DIVINE NAT. BOOK
<i>Allobates femoralis</i>	15	35	D	D
<i>Adenomera andreae</i>	27	22	D	DN
<i>Bufo prasinus</i>	17	55	D	D
<i>Colostethus striatus</i>	23	18	D	D
<i>Bufo marinus</i>	73	250	N	N
<i>Leptodactylus fuscus</i>	66	47	N	N
<i>Osteocephalus taurinus</i>	76	101	N	N
<i>Leptodactylus pentadactylus</i>	130	135	N	N
<i>Leptodactylus riverai</i>		58		N
<i>Leptodactylus stenodema</i>	170	96	N	D/N
<i>Andenomera hylaeodactyla</i>	27mm	27mm	N	D/N
<i>Dendrophryniscus minus</i>	13	58	N	D/N
<i>Elptodactylus fenestratus</i>	27mm	32mm	N	D



Among the activities also make a presentation of the best Photos depicting the observed biodiversity and a trip to the Acara stream where it was possible to see changes in topography and type of forest vegetation to campinarana.



Lloyd Haines



Joshua Brierley (Taken in Reserve Aducke)



Chiara Benvenuto

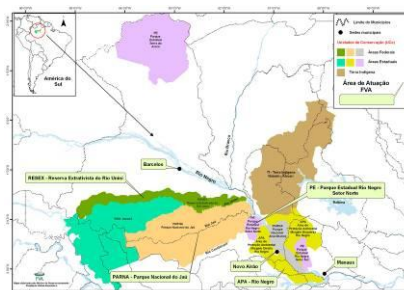


Chiara Benvenuto

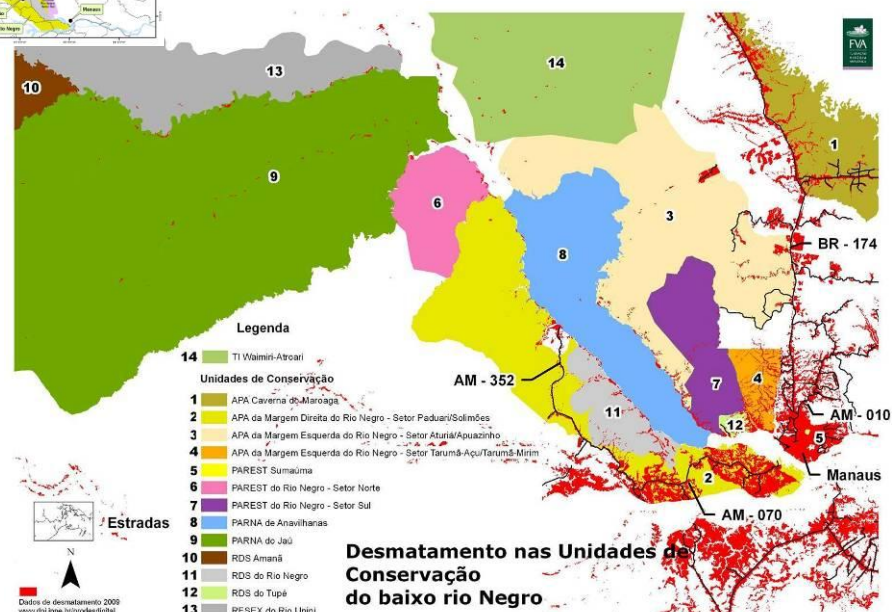
The second part of the course started on 18 and continued until the 24th of January. The expedition took place in two tour boats where it was possible to experience this routine. The expedition route was traced in order to visit the mosaic of the lower Rio Negro protected areas, known as is the exploitation of natural resources is through the creation of captive fish, crafts sale and tourism. Below the trip itinerary.



During the expedition, Ignacio Oliete Josa, Coordinator of Integrated Human Development Programme (PDHI) Amazon Victory Foundation (FVA), gave a lecture on the units of the lower Rio Negro Conservation and actions of FVA.



[//www.icmbio.gov.br/portal/o-que-fazemos/mosaicos-e-s/moscaicos-reconhecidos-oficialmente/ucs-mosaicos-e-dades-de-conservacao-mosaico-do-baixo-rio-negro.html](http://www.icmbio.gov.br/portal/o-que-fazemos/mosaicos-e-s/moscaicos-reconhecidos-oficialmente/ucs-mosaicos-e-dades-de-conservacao-mosaico-do-baixo-rio-negro.html)



Dr. Glenn Shepard presented three lectures, one on linguistic diversity, the importance of hunting for the indigenous and the other on the use of arumã.



Linguistic and cultural diversity in the Amazon

Eensie weenise micro nano teeny tiny brief **overview**





Indigenous hunting in Manu National Park, Peru: Culture, ecology and sustainability

Glenn H. Shepard Jr. - Goeldi Museum

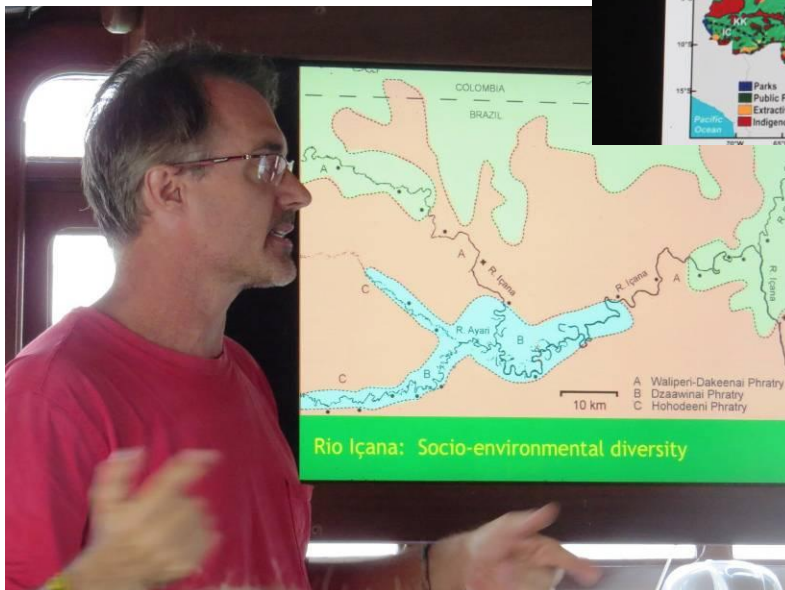
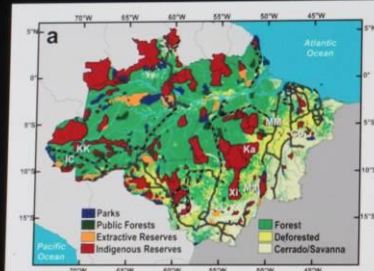
<http://ethnoground.blogspot.com>

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@TweetTropiques

Amazonia: 54% of all protected areas are indigenous reserves
Brazil: Indigenous lands 5X the area of parks: 1 million km²

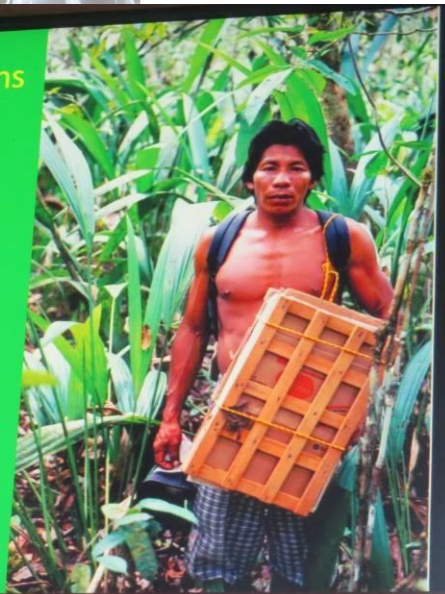
Indigenous reserves are equally, if not more effective than parks in halting deforestation and forest fires.



Rio Içana: Socio-environmental diversity

Results & Implications

- Concrete demand of indigenous association
- Participation of indigenous researchers
 - 8 indigenous stipends
- Dialogue between indigenous, NGO and scientific partners
- Notion of sustainability
- Management suggestions
- Applied and basic research
- 4 master's theses



Throughout the trip the students should report tourist aspects and record the biodiversity. The material used in the course can be found at https://ppbio.inpa.gov.br/en/Disciplines_and_Courses target groups. To see the script documented through photos on <https://www.facebook.com/ppbio.inpa> Text and photo: Maria Aparecida de Freitas.